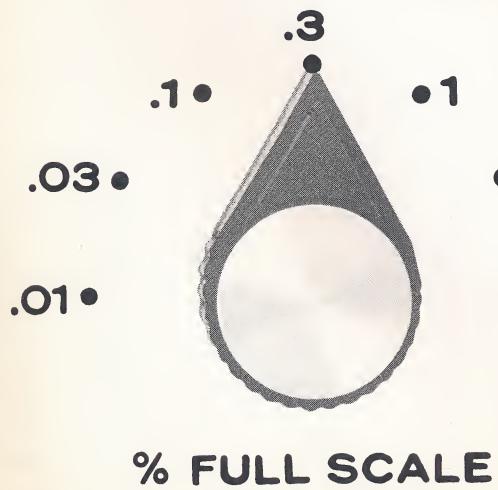


If someone made a flutter meter that was consistently accurate to $\pm 2\%$ on all ranges, that displayed meter readout for both drift and flutter, that measured to NAB and DIN or IRIG standards, that was automatically self-calibrating, and that required no set-up time, could you use it?



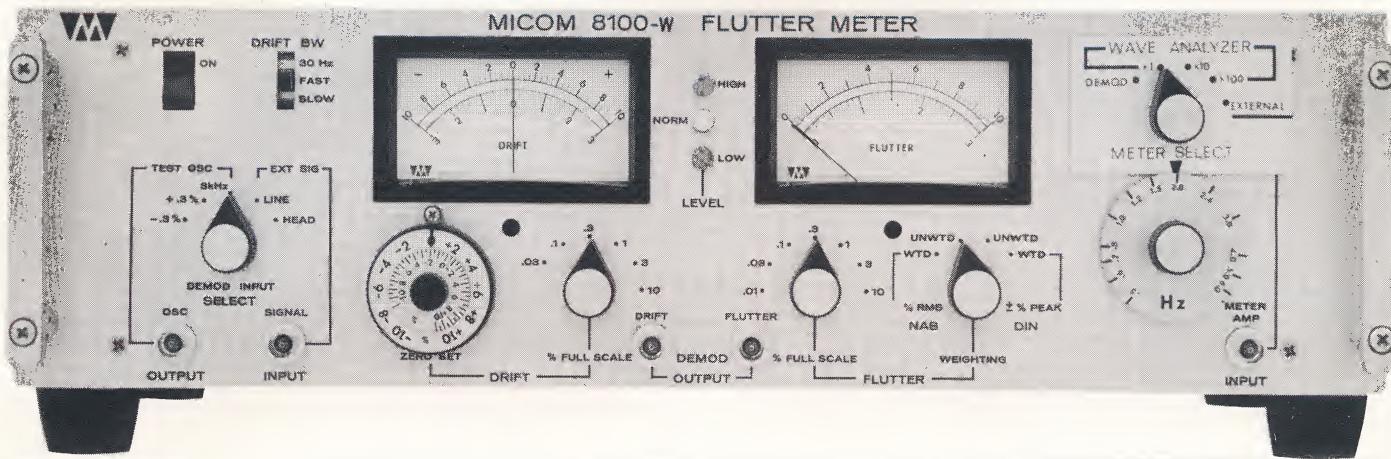


Standards are made to be met, and for the first time, flutter meters are available that measure precisely and accurately to existing standards—the Model 8100 to both NAB and DIN standards, the Model 8200 to IRIG standards and higher.

These instruments accurately measure the amount of flutter in both audio and data recording equipment, consistently delivering the highest precision ever obtained in flutter measurement. Advanced solid state circuitry allows meter read-out for both drift and flutter, eliminating subjective analysis of scope traces.

Both instruments are available with built-in wave analyzers to quickly determine the frequency of each flutter component.

The MICOM meters were designed as laboratory instruments, but are so simple to use that they are highly efficient on production lines. The meters are self-calibrating and require no warm-up period or calibration adjustments for accuracy. They also serve as precision FM detectors of unusual sensitivity and bandwidth for other applications.



MICOM 8200 Wide Band Flutter Meter

The MICOM 8200 Wide Band Flutter Meter, designed for instrumentation tape recorders, is the most sensitive and accurate flutter meter ever developed. Meter read-out of both drift and flutter eliminates the subjective element in the interpretation of oscilloscope indications by an operator.

Drift is indicated as $\pm \%$. Peak-to-peak flutter is automatically measured to a 2 σ limit (random peaks occurring less than 5% of the time are excluded). Peak-to-peak flutter to a 3 σ limit (peaks less than .3% of the time excluded) may also be measured.

Test Frequencies: 13.5kHz, 27kHz, 108kHz and 216kHz.

Flutter Bandwidths: .2Hz to 5kHz, 10kHz, and 20kHz.

Drift Ranges: $\pm .03\%$, $\pm .1\%$, $\pm .3\%$, $\pm 1\%$, $\pm 3\%$, and ± 10 % full scale.

Flutter Ranges: .01%, .03%, .1%, .3%, 1%, 3%, and 10% peak-to-peak full scale.

Accuracy on all Ranges:

$\pm 2\%$ at demodulator output.
 $\pm 5\%$ full scale meter indication.

Input Level: 1 mv to 2 V rms.

AGC and Limiting: Accommodates -20dB dropouts plus a 66dB dynamic range.

Automatic indication of under or over range input.

The MICOM Model 8200 can accurately measure flutter to the 10ppm level, an order of magnitude better than any previous meter.

The Model 8200-W includes a wave analyzer tuneable from 0.5Hz to 60kHz in 5 overlapping ranges. Its constant 10% bandwidth facilitates the rapid determination of frequency components in the observed flutter, and thereby the causes of excessive flutter. (The built-in analyzer covers a wider fre-

quency range than separate sound and vibration analyzers previously used. The lowest range, down to .5Hz, is particularly useful in the investigation of mechanical systems.)

MICOM 8100 Audio Standard Flutter Meter

The Model 8100 Flutter Meter is widely used on production lines and in the laboratories of leading manufacturers. It measures precisely to both NAB (National Association of Broadcasters) and DIN (Deutsche Industrie Normen) standards. Both drift and flutter are independently indicated on large, accurate meters.

Test Frequency: 3.0 kHz $\pm 10\%$

Flutter Bandwidth:

.2 to 200 Hz unweighted

.2 to 200 Hz NAB or DIN weighted

Drift Ranges: $\pm .03\%$, $\pm .1\%$, $\pm .3\%$, $\pm 1\%$, $\pm 3\%$, and ± 10 % full scale.

Flutter Ranges: .01%, .03%, .1%, .3%, 1%, 3% and 10% full scale.

Indication is \pm peak or rms.

Accuracy on all Ranges:

$\pm 2\%$ at demodulator output
 $\pm 5\%$ full scale meter indication

Input Levels: 5 mv to 5 V rms. accepted in two ranges.

AGC and Limiting: Accommodates -20dB dropouts plus a 40dB dynamic range.

Automatic indication of under or over range input.

The MICOM Model 8100 can accurately measure flutter to the 5ppm level. Future improvements in tapes and transports will not cause obsolescence of this instrument.

The Model 8100-W includes a wave analyzer tuneable from 0.5Hz to 600Hz in 3 overlapping ranges. The wave analyzer is an invaluable diagnostic tool in locating the particular mechanical components contributing to excessive flutter.

Micom's flutter meters and wave analyzers are the first products in a scheduled line of precision electronic instruments and audio equipment.

The company's products are filling a need in a new and fast-moving industry. The performance that Micom's products deliver is the result of years of sophisticated engineering development and highly controlled manufacturing techniques. Quality and dependability are built into every product, and are guaranteed by the firm.

Located in the heart of the San Francisco Peninsula electronics complex, Micom offers engineering excellence and precision performance to manufacturers and users of all types of data and audio recording and play-back equipment.

For complete specifications, contact:



MICOM

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Palo Alto, California 94303
Telephone: (415) 328-2961

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PRICE LIST

8100 Flutter Meter (Audio Standard)	\$1,450.00
8100-W Flutter Meter (Audio Standard) with Wave Analyzer	1,775.00
8200 Flutter Meter (Wide Band)	2,450.00
8200-W Flutter Meter (Wide Band) with Wave Analyzer	2,875.00
8300 Flutter Meter (IRIG Standard)	2,550.00
8300-W Flutter Meter (IRIG Standard) with Wave Analyzer	2,975.00
Power Cord*	2.50
Instruction Manual (for Model required)*	10.00
Adaptor, Binding Posts to BNC plugs	5.50

F.O.B. - MICOM, Palo Alto, California
Terms - 1/2%-10 days, Net-30 days

Quantity Discount -	0 to 9	Net
	10 to 24	10%
	25 or more	15%

*When purchased separately

All quotations based on U.S. Currency
Subject to change without prior notice

March 1, 1967